

WE CLAIM:

1. A vibration switch comprising:

5 a housing adapted to be mounted on a support in an upright direction, and having first and second side walls which are spaced apart from each other along an axis in a longitudinal direction transverse to the upright direction, and a surrounding wall which is interposed between and which cooperates with said first and second side walls to confine an accommodation chamber
10 thereamong;

a first electric contact terminal having a first connecting end which is adapted to be connected to the support, and a first contact end which extends from said first connecting end to confront said accommodation
15 chamber;

a second electric contact terminal disposed to be electrically insulated from said first electric contact terminal, and having a second connecting end adapted to be connected to the support, and a second contact end
20 extending from said second connecting end into said accommodation chamber proximate to said second side wall such that when said vibration switch is in a stable position, said second contact end is electrically insulated and is spaced apart from said first contact end
25 within said accommodation chamber; and

a deflectable electric contact body disposed in said accommodation chamber, and having first and second

anchoring ends which are opposite to each other in the longitudinal direction and which are disposed to anchor on said first and second side walls, respectively, and an intermediate portion which is interposed between said first and second anchoring ends, said intermediate portion being made from a deflectable material, and including a deflecting segment, and first and second deflected segments that flank said deflecting segment and that are respectively proximate to said first and second anchoring ends so as to be deflected with said deflecting segment in a same direction, said deflecting segment being configured in such a manner as to acquire a biasing force such that, by virtue of the biasing force that acts against weight of said deflecting segment, said first and second contact ends are held in the stable position, and such that, when said housing is jerked out of the stable position, said deflecting segment, together with said first and second deflected segments, is deflected in a direction radial to the axis as a result of an inertial force thereof, thereby bringing at least one of said deflecting segment and said first and second deflected segments into electric contact with at least one of said first and second contact ends.

2. The vibration switch of Claim 1, wherein said deflectable electric contact body includes a coil spring which is made from an electrically conductive material, and which includes a plurality of loops wound spirally

about the axis.

3. The vibration switch of Claim 2, wherein two adjacent ones of said loops at each of said first and second deflected segments defines a first distance along the axis, two adjacent ones of said loops at said deflecting segment defining a second distance along the axis, the second distance being smaller than the first distance.
4. The vibration switch of Claim 3, wherein said first side wall and said surrounding wall of said housing are made from an electrically conductive material, said first electric contact terminal being formed integrally with said first side wall, said second side wall having an insulating portion formed thereon, said second contact end of said second electric contact terminal extending through said insulating portion along the axis into said accommodation chamber.
5. The vibration switch of Claim 4, wherein said first anchoring end is electrically connected to said first contact end of said first electric contact terminal, said deflecting segment being brought into electric contact with said second contact end of said second electric contact terminal when said housing is jerked out of the stable position.
6. The vibration switch of Claim 5, wherein said second contact end of said second electric contact terminal is configured such that said loops at said deflecting segment and said second deflected segment surround said

second contact end.

- 5 7. The vibration switch of Claim 6, wherein said loops at said deflecting segment have an inner diameter which is smaller than that of said loops at said first and second deflected segments.
- 10 8. The vibration switch of Claim 6, wherein said loops of said coil spring have a uniform inner diameter, said second contact end of said second electric contact terminal having an enlarged contact head which is disposed within said loops at said deflecting segment so as to facilitate contact with said loops when said housing is jerked out of the stable position.
- 15 9. The vibration switch of Claim 4, wherein said first side wall of said housing has an insulating protrusion which extends towards said second side wall along the axis, said first and second anchoring ends being retainingly sleeved on said insulating protrusion and said second contact end of said second electric contact terminal, respectively.
- 20 10. The vibration switch of Claim 9, wherein said deflectable electric contact body further includes a weight member which is rollably retained in said loops at said deflecting segment so as to increase the inertial force of said deflecting segment when said housing is
- 25 jerked out of the stable position.
11. The vibration switch of Claim 3, wherein said housing is made from an insulating material, each of said first

and second contact ends of said first and second electric contact terminals being a rod which is configured to be surrounded by said loops at a respective one of said first and second deflected segments such that said loops at said first and second deflected segments are brought into electric contact with said first and second contact ends, respectively, when said housing is jerked out of the stable position.

- 5
- 10
12. The vibration switch of Claim 11, wherein said deflectable electric contact body further includes a weight member which is retained in said loops at said deflecting segment so as to increase the inertial force of said deflecting segment when said housing is jerked out of the stable position.